FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA
		Applicant: McSwiggen, et al.	
		Filing Date: TBA	Group: TBA

FOREIGN PATENT DOCUMENTS

	2	Document Number	Date	Country	Class	Subclass	Translation
H	2	EP 0 360 257	09/20/89	EP (Hampel et al.)			
	•	WO 91/03162	03/21/91	WO (Rossi et al.)			
	•	WO 92/07065	04/30/92	WO (Eckstein et al.)			
	•	WO 93/15187	08/05/93	WO (Usman et al.)			
	•	WO 93/23057	11/25/93	WO (Thompson, et al.)			
	•	WO 93/23569	11/25/93	WO (Draper et al.)			
	•	WO 94/02595	02/03/94	WO (Sullivan et al.)			
	*	WO 95/04818	02/16/95	WO (Draper et al.)			
	•	WO 95/11304	04/27/95	WO (Usman et al.)			
	*	WO 95/13380	05/18/95	WO (Draper et al.)			
	•	WO 95/23225	08/31/95	WO (Stinchcomb et al.)			
	*	WO 96/10390	04/11/96	WO (Ansell, et al.)			
	•	WO 96/10391	04/11/96	WO (Choi et al.)			•
	*	WO 96/10392	04/11//96	WO (Holland et al.)			
	*	WO 96/18736	06/20/96	WO (Beigelman)			
	*	WO 96/19577	06/27/96	WO (Collins)			
	*	WO 96/22689	08/01/96	WO (Pyle et al.)			
	*	WO 97/26270	07/24/97	WO (Wincott et al.)			-
	*	WO 98/01542	01/15/98	WO (Collins et al.)			
	*	WO 98/13526	04/02/98	WO (Woolf et al.)			
	•	WO 98/14592	04/09/98	WO (Cech et al.)			
	•	WO 98/14593	04/09/98	WO (Cech et al.)			
	*	WO 98/28317	07/02/98	WO (Karpiesky et al.)			
	•	WO 98/43993	10/08/98	WO (Breaker et al.)			
	*	WO 98/58058	12/23/98	WO (Ludwig et al.)			
	*	WO 99/16871	04/08/99	WO (Eckstein et al.)			
	•	WO 99/55857	11/04/99	WO (Beigelman et al.)			

EXAMINER (met fing & for	nd	DATE CONSIDERED	2-6-06	

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

McDONNELL BOEHNEN HULBERT & BERCHOFF 300 SOUTH WACKER DRIVE CHICAGO, ILLINOIS 60806 TELEPHONE (312) 913-0001

Sheet 2 of 12

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA
		Applicant: McSwiggen, et al.	
	•	Filing Date: TBA	Group: TBA

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc). Abramovitz et al., "Catalytic Role of 2'-Hydroxyl Groups Within a Group II Intron Active Site," Science 271:1410-1413 (1996) Akhtar and Juliano, "Cellular Uptake and Intracellular Fate of AntiSense Oligonucleotides," <u>Trends Cell Biol.</u> 2:139-144 (1992) Banerjee and Turner, "The Time Dependence of Chemical Modification Reveals Slow Steps in the Folding of a Group I Ribozyme," Biochemistry 34:6504-6512 (1995) Beaudry and Joyce, "Directed Evolution of an RNA Enzyme," Science 257:635-641 (1992) Beigelman et al., "Chemical Modification of Hammerhead Ribozymes," J. Biol. Chem. 270:25702-25708 (1995) Bellon et al., "Amino-Linked Ribozymes: Post-Synthetic Conjugation of Half-Ribozymes," Nucleosides & Nucleotides 16:951-954 (1997) Berzal-Herranz et al., "Essential nucleotide sequences and secondary structure elements of the hairpin ribozyme," EBMO J. 12:2567-2574 (1993) Berzal-Herranz et al., "In vitro selection of active hairpin ribozymes by sequential RNAcatalyzed clevage and ligation reactions," Genes & Development 6:129-134 (1992) Bevilacqua et al., "A Mechanistic Framework for the Second Step of Splicing Catalyzed by the Tetrahymena Ribozyme," Biochemistry 35:648-568 (1996) Blackburn, "E., 1990, JBC., 265, 5919-5921 Breaker and Joyce, "Inventing and improving ribozyme function: rational design versus iterative selection methods," TIBTECH 12:268-275 (1994) Breaker et al., "A DNA enzyme with Mg2-dependent RNA phosphoesterase activity," Chemistry & Biology 2(10):655-660 (1995) Breaker, "Are engineered proteins getting competition from RNA?" Current Opinion in Biotechnology 7:442-448 (1996) Burgin et al., "Chemically Modified Hammerhead Ribozymes with Improved Catalytic Rates," Biochemistry 35:14090-14097 (1996) (volume no mistakenly listed as 6)

EXAMINER July - Ford	DATE CONSIDERED	2-6-06	

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Pat nt and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA
		Applicant: McSwiggen, et al.	
		Filing Date: TBA	Group: TBA

_			
	H		Burke et al., "Structural Analysis and Modifications of the Hairpin Ribozyme," Nucleic Acids and Molecular Biology, edited by Eckstein and Lilley, Springer-Verlag Berlin Heidelberg, 10:129-143 (1996)
		*	Caruthers et al., "Chemical Synthesis of Deoxyoligonucleotides and Deoxyoligonucleotide Analogs," Methods in Enzymology 211:3-19 (1992)
		*	Cech et al., "Representation of the secondary and tertiary structure of group I introns," nature structural biology 1:273-280 (1994)
		•	Cech, "Ribozymes and Their Medical Implications," JAMA 260:3030-3034 (1988)
		*	Chartrand et al., "An oligodeoxyribonucleotide that supports catalytic activity in the hammerhead ribozyme domain," <u>Nucleic Acids Research</u> 23(20):4092-4096 (1995)
		•	Chen et al., "Multitarget-Ribozyme Directed to Cleave at up to Nine Highly Conserved HIV-1 env RNA Regions Inhibits HIV-1 Replication-Potential Effectiveness Against Most Presently Sequenced HIV-1 Isolates," Nucleic Acids Research 20:4581-4589 (1992)
		+	Chowrira et al., "In Vitro and in Vivo Comparison of Hammerhead, Hairpin, and Hepatitis Delta Virus Self-Processing Ribozyme Cassettes," J. Biol. Chem. 269:25856-25864 (1994)
		*	Chowrira et al., "Novel guanosine requirement for catalysis by the hairpin ribozyme," Nature 354:320-322 (1991)
		*	Christoffersen and Marr, "Riobozymes as Human Therapeutic Agents," <u>J. Med. Chem.</u> 38:2023-2037 (1995) (also referred to as Christofferson and Marr)
		•	Christofferson et al., "Application of computational technologies to ribozyme biotechnology products," <u>Journal of Molecular Structure (Theochem)</u> 311:273-284 (1994) (Christoffersen)
			Collins and Olive, "Reaction Conditions and Kinetics of Self-Cleavage of a Ribozyme Derived From <i>Neurospora</i> VS RNA," <u>Biochemistry</u> 32:2795-2799 (1993)
			Couture and Stinchcomb, "Anti-gene therapy: the use of ribozymes to inhibit gene function," <u>Trends In Genetics</u> 12:510-515 (1996)

EXAMINER DATE CONSIDERED		
2-6-06	hoff Loop and	DATE CONSIDERED 2-6-06

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Comm rce Pat nt and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA
		Applicant: McSwiggen, et al.	
		Filing Date: TBA	Group: TBA

H	•	Daniels et al., "Two Competing Pathways for Self-splicing by Group II Introns: A Quantitative Analysis of <i>in Vitro</i> Reaction Rates and Products," <u>J. Mol. Biol.</u> 256:31-49 (1996)
	•	Dreyfus, "Restriction Ribozymes?" Einstein Quarterly Journal of Biology and Medicine 6:92-93 (1988)
	•	Duval-Valentin, "Specific inhibition of transcription by triple helix-forming oligonucleotides," Proc. Natl. Acad. Sci. USA 89:504-508 (1992)
	•	Egholm et al., "PNA hybridizes to complementary oligonucleotides obeying the Watson-Crick hydrogen-bonding rules," Nature 365:566-568 (1993)
	•	Elroy-Stein and Moss, "Cytoplasmic Expression System Based on Constitutive Synthesis of Bacteriophage T7 RNA Polymerase in Mammalian Cells," <u>Proc. Natl. Acad. Sci. USA</u> 87:6743-6747 (1990)
	•	Feldstein et al., "Two sequences participating in the autolytic processing of satellite tobacco ringspot virus complementary RNA," Gene 82:53-61 (1989)
	٠	Feng et al., "The RNA Component of Human Telomerase," Science 269:1236-1241 (1995):
	•	Forster and Altman, "External Guide Sequences for an RNA Enzyme," Science 249:783-786 (1990)
	*	Freier et al., "Improved free-energy parameters for predictions of RNA duplex stability," Proc. Natl. Acad. Sci. USA 83:9373-9377 (1986)
	•	Gao and Huang, "Cytoplasmic Expression of a Reporter Gene by Co-Delivery of T7 RNA Polymerase and T7 Promoter Sequence with Cationic Liposomes," Nucleic Acids Research 21:2867-2872 (1993)
γ	•	Good et al., "Expression of small, therapuetic RNAs in human nuclei," Gene Therapy 4:45-54 (1997)
K	*	Grasby et al., "Purine Functional Groups in Essential Residues of the Hairpin Ribozyme Required for Catalytic Cleavage of RNA," <u>Biochemistry</u> 34:4068-4076 (1995)

EXAMINER	(met J-Cosos- Ford	DATE CONSIDERED	2-6-66	

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	ТВА
		Applicant: McSwiggen, et al.	
		Filing Date: TBA	Group: TBA

A		Griffin et al., "Group II intron ribozymes that cleave DNA and RNA linkages with similar efficiency, and lack contacts with substrate 2'-hydroxyl groups," Chemistry & Biology 2:761-770 (1995)
	•	Guerrier-Takada et al., "The RNA Moiety of Ribonuclease P Is the Catalytic Subunit of the Enzyme," Cell 35:849-857 (1983)
	•	Guo and Collins, "Efficent <i>trans</i> -cleavage of a stem-loop RNA substrate by a ribozyme derived from <i>Neurospora</i> VS RNA," <u>EMBO J.</u> 14:368-376 (1995)
	*	Hampel and Tritz, "RNA Catalytic Properties of the Minimum (-)sTRSV Sequence," <u>Biochemistry</u> 28:4929-4933 (1989)
		Hampel et al., "Hairpin' Catalytic RNA Model: Evidence for Helices and Sequence Requirement for Substrate RNA," Nucleic Acids Research 18:299-304 (1990)
		Harris et al., "Identification of phosphates involved in catalysis by the ribozyme RNase P RNA," RNA 1:210-218 (1995)
	•	Haseloff and Gerlach, "Sequences required for self-catalysed cleavage of the satellite RNA of tobacco ringspot virus," Gene 82:43-52 (1989)
	<u> </u>	Haseloff and Gerlach, "Simple RNA Enzymes with New and Highly Specific Endoribonuclease Activities," Nature 334:585-591 (1988)
		Hegg et al., "Kinetics and Thermodynamics of Intermolecular Catalysis by Hairpin Ribozymes," <u>Biochemistry</u> 34:15813-15828 (1995)
	•	Herschlag and Cech, "Catalysis of RNA Cleavage by the <i>Tetrahymena thermophila</i> Ribozyme 1. Kinetic Description of the Reaction of an RNA Substrate Complementary to the Active Site," <u>Biochemistry</u> 29:10159-10171 (1990)
h	*	Hertel et al., "A Kinetic Thermodynamic Framework for the Hammerhead Ribozyme Reaction," Biochemistry 33:3374-3385 (1994)
h	•	Hertel et al., "Numbering System for the Hammerhead," Nucleic Acids Research 20:3252 (1992)

EXAMINER (N	et f.S.) 15/1	18-7014	DATE CONSIDERED	2-6-06	
			7 777				===

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trad mark Office	Atty. Docket No.	Serial No.	
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA	
		Applicant: McSwiggen, et al.		
		Filing Date: TBA	Group: TBA	

	Je	•	Ishiwata et al., "Physical-Chemistry Characteristics and Biodistribution of Poly(ethylene glycol)-Coated Liposomes Using Poly(oxyethylene) Cholesteryl Ether," Chem. Pharm. Bull. 43:1005-1011 (1995) (mistakenly referred to as Ishiwataet)
		*	Izant and Weintraub, "Constitutive and Conditional Suppression of Exogenous and
#			Endogeneous Genes by Anti Songo PNA " Science 220:245 252 (4005)
-	+ 1	-	Endogeneous Genes by Anti-Sense RNA," Science 229:345-352 (1985)
			Jaeger et al., "Improved Predictions of Secondary Structures for RNA," Proc. Natl. Acad. Sci. USA 86:7706-7710 (1989)
	1 1	•	Jeffries and Symons, "A Catalytic 13-mer Ribozyme," Nucleic Acids Research 17:1371-
			1377 (1989) (also referred to as Jefferies)
		•	Joseph et al., "Substrate selection rules for the hairpin ribozyme determined by in vitro
	1 1		soloction, mutation, and analysis of mismatched substants !! O area 0. December 1.
	1 1		selection, mutation, and analysis of mismatched substrates," Genes & Development
-	4-4		7:130-138 (1993)
		•	Joyce et al., "Amplification, mutation and selection of catalytic RNA," <u>Gene</u> 82:83-87 (1989)
		•	Joyce, "Directed Molecular Evolution," Scientific American 267:90-97 (1992)
ı	I = I	*	Karpeisky et al, "Highly Efficient Synthesis of 2'-O-Amino Nucleosides And Their
	1 1		Incorporation in Hammerhead Ribozymes," <u>Tetrahedron Letters</u> 39:1131-1134 (1998)
		•	Kashani Sahat at al "Dayornal of the Melignant Dharat as he as Astino Diterent
		(Kashani-Sabet et al., "Reversal of the Malignant Phenotype by an Anti-ras Ribozyme," Antisense Research & Development 2:3-15 (1992)
		٠	Kim and Cech, "Three-dimensional model of the active site of the self-splicing rRNA
			precursor of <i>Tetrahymena</i> ," Proc. Natl. Acad. Sci. USA 84:8788-8792 (1987)
		•	Kim et al., "Specific Association of Human Telomerase Activity with Immortal Cells and
			Cancer " Science 266:2044, 2045 (4004)
H		-, 	Cancer," Science 266:2011-2015 (1994)
	1	-	Knitt et al., "ph Dependencies of the Tetrahymena Ribozyme Reveal an Unconvential
M	_/_		Origin of an Apparent pK _a ," <u>Biochemistry</u> 35:1560-1570 (1996)
1		•	Kore, et al., "Sequence specificity of the hammerhead ribozyme revisisteed the NIH rule"
/			Kore, et al., "Sequence specificity of the hammerhead ribozyme revisistsed; the NIH rule", Nucleic Acids Research, 26(18):4116-4120 (1998).
7			120(100).

EXAMINER	/h	Af Grand	DATE CONSIDERED 2-1-N
		11. 17 PX S. 101CX	

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.	
	NFORMATION DISCLOSURE STATEMENT BY APPLICANT Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA	
		Applicant: McSwiggen, et al.		
		Filing Date: TBA	Group: TBA	

	<u> </u>	\sim	
	R	•	Kumar and Ellington, "Artificial evolution and natural ribozymes," <u>FASEB J.</u> 9:1183-1195 (1995)
		•	Lasic and Needham "The 'Stealth' Liposome: A Prototypical Biomaterial," Chemical Reviews 95:2601-2627 (1995)
		•	Lasic and Papahadjopoulos, "Liposomes Revisited," Science 267:1275-1276 (1995)
		•	L'Huillier et al., "Cytoplasmic Delivery of Ribozymes Leads to Efficient Reduction in α- Lactalbumin mRNA Levels in C1271 Mouse," <u>EMBO J.</u> 11:4411-4418 (1992)
		•	Li and Altman, "Cleavage by RNase P of gene N mRNA reduces bacteriophage λ burst size," Nucleic Acids Research 24:835-842 (1996)
		•	Li et al., "Thermodynamic and Activation Parameters for Binding of a Pyrene-Labeled Substrate by the <i>Tetrahymena</i> Ribozyme: Docking is Not Diffusion-Controlled and is Driven by a Favorable Entropy Change," <u>Biochemistry</u> 34:14394-14399 (1995)
		•	Lieber et al., "Stable High-Level Gene Expression in Mammalian Cells by T7 Phage RNA Polymerase," Methods Enzymol. 217:47-66 (1993)
		•	Limbach et al., "Summary: the modified nucleosides of RNA," Nucleic Acids Research 22(12):2183-2196 (1994)
		•	Lisacek et al., "Automatic Identification of Group I Intron Cores in Genomic DNA Sequences," J. Mol. Biol. 235:1206-1217 (1994)
		•	Lisziewicz et al., "Inhibition of Human Immunodeficiency Virus Type 1 Replication by Regulated Expression of a Polymeric Tat Activation Response RNA Decoy as a Strategy for Gene Therapy in AIDS," Proc. Natl. Acad. Sci. U.S.A. , 90:8000-8004 (1993)
		•	Liu et al., "Cationic Liposome-mediated Intravenous Gene Delivery," J. Biol. Chem. 270(42):24864-24870 (1995)
		•	McGarry and Lindquist, "Inhibition of heat shock protein synthesis by heat-inducible antisense RNA," Proc. Natl. Acad. Sci. USA 83:399-403 (1986)
4	H	-	McKay, "Structure and function of the hammerhead ribozyme: an unfinished story," RNA 2:395-403 (1996)

/						
EXAMINER (hu	HQ	D-Pord	DATE CONSIDERED	2-6-06	

FORM PTO-1449 (Rev. 2-32)	U.S. Departm nt of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA
		Applicant: McSwiggen, et al.	
	·	Filing Date: TBA	Group: TBA

_		•	substrates
	1	<u> </u>	Michel and Westhof, "Slippery-substratrates," Nat. Struct. Biol. 1:5-7 (1994)
		•	Michel et al., "Structure and Activities of Group II Introns," <u>Annu. Rev. Biochem.</u> 64:435-461 (1995)
		•	Michels and Pyle, "Conversion of a Group II Intron into a New Multiple-Turnover Ribozyme that Selectively Cleaves Oligonucleotides: Elucidation of Reaction Mechanism and Structure/Function Relationships," Biochemistry 34:2965-2977 (1995)
		*	Milligan and Uhlenbeck, "Synthesis of Small RNAs Using T7 RNA Polymerase," Methods Enzymol. 180:51-62 (1989)
		•	Mitra et al., "A mammalian 2-5A system functions as an antiviral pathway in transgenic plants," Proc. Natl. Acad. Sci. USA 93:6780-6785 (1996)
		•	Mohr et al., "A tyrosyl-tRNA synthetase can function similarly to an RNA structure in the <i>Tetrahymena</i> ribozyme," Nature 370:147-150 (1994)
			Moore and Sharp, "Site-Specific Modification of Pre-mRNA: The 2'-Hydroxyl Groups at the Splice Sites," Science 256:992-996 (1992)
		•	Mukhopadhyay et al., "Antisense Regulation of Oncogenes in Human Cancer," <u>Critical</u> Reviews in Oncogenesis 7:151-190 (1996)
		•	Nathans and Smith, "Restriction Endonucleases in the Analysis and Restructuring of DNA Molecules," Ann. Rev. Biochem. 44:273-293 (1975)
		•	Ohkawa et al., "Activities of HIV-RNA Targeted Ribozymes Transcribed From a 'Shot-Gun' Type Ribozyme-trimming Plasmid," Nucleic Acids Symp. Ser. 27:15-16 (1992)
		•	Ojwang et al., "Inhibition of Human Immunodeficiency Virus Type 1 Expression by a Hairpin Ribozyme," <u>Proc. Natl. Acad. Sci. USA</u> 89:10802-10806 (1992)
		•	Oku et al., "Real-time analysis of liposomal trafficking in tumor-bearing mice by use of positron emission tomography," <u>Biochimica et Biophysica Acta</u> 1238:86-90 (1995)
0	1	•	Orgel, "Selection in vitro," Proc. R. Soc. London B. 205:435-442 (1979)
M			Pace and Smith, "Ribonuclease P: Function and Variation," <u>J. Biol. Chem.</u> 265:3587-3590 (1990)

EXAMINER (met f. CAB-	Ford DATE CONSIDERED 2-6-06	

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Dock t No.	S rial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	ТВА
		Applicant: McSwiggen, et al.	
		Filing Date: TBA	Group: TBA

)		
R	•	Pan et al., "Probing of tertiary interactions in RNA: 2'-Hydroxyl-base contacts between the Rnase P and pre-tRNA," <u>Proc. Natl. Acad. Sci. USA</u> 92:12510-12514 (1995)
	•	Perreault et al., "Mixed Deoxyribo- and Ribo-Oligonucleotides with Catalytic Activity," Nature 344:565-567 (1990) (often mistakenly listed as Perrault)
	•	Perrotta and Been, "A pseudoknot-like structure required for efficeint self-cleavage of hepatitis delta virus RNA," Nature 350:434-436 (1991)
	•	Perrotta and Been, "Cleavage of Oligoribonucleotides by a Ribozyme Derived from the Hepatitis δ Virus RNA Sequence," <u>Biochemistry</u> 31:16-21 (1992)
	*	Pieken et al., "Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes," <u>Science</u> 253:314-317 (1991)
	*	Puttaraju et al., "A circular trans-acting hepatitis delta virus ribozyme," <u>Nucleic Acids</u> <u>Research</u> 21:4253-4258 (1993)
	*	Pyle et al., "Building a Kinetic Framework for Group II Intron Ribozyme Activity: Quantitation of Interdomain Binding and Reaction Rate," <u>Biochemistry</u> 33:2716-2725 (1994)
	*	Robertson et al., "Purification and Properties of a Specific <i>Escherichia coli</i> Riobnuclease which Cleaves a Tyrosine Transfer Ribonucleic Acid Precursor," <u>J. Biol. Chem.</u> 247:5243-5251 (1972)
	•	Rossi et al., "Ribozymes as Anti-HIV-1 Therapeutic Agents: Principles, Applications, and Problems," Aids Research and Human Retroviruses 8:183-189 (1992)
	•	Santoro and Joyce, "A general purpose RNA-cleaving DNA enzyme," Proc. Natl. Acad. Sci. USA 94:4262-4266 (1997)
\bigcap	•	Sarver et al., "Ribozymes as Potential Anti-HIV-1 Therapeutic Agents" Science 247:1222-1225 (1990)
4	•	Saville and Collins, "A Site-Specific Self-Cleavage Reaction Performed by a Novel RNA In Neurospora Mitochondria," Cell 61:685-696 (1990)

EXAMINER	but he and Told	DATE CONSIDERED 2-6-06
	7 111	

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.	
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I TBA (400/118)		
		Applicant: McSwiggen, et al.		
		Filing Date: TBA	Group: TBA	

_	1	•	
			Saville and Collins, "RNA-Mediated Ligation of Self-Cleavage Products of a Neurospora
			Mitochondrial Plasmid Transcript," Proc. Natl. Acad. Sci. USA 88:8826-8830 (1991)
	$I \mid I$	•	Scanlon et al., "Ribozyme-Mediated Cleavage of c-fos mRNA Reduces Gene Expression
1			of DNA Synthesis Enzymes and Metallothionein," Proc. Natl. Acad. Sci. USA 88:10591-
ļ	\perp		10595 (1991)
	$I \mid I$	•	Scaringe et al., "Chemical synthesis of biologically active oligoribonucleotides using β-
	I - I		cyanoethyl protected ribonucleoside phosphoramidites," <u>Nucl Acids Res.</u> 18:5433-5441
<u></u>			(1990)
		•	Schmidt et al., "Base and sugar requirements for RNA cleavage of essential nucleoside
1 1			residues in internal loop B of the hairpin ribozyme: implications for secondary structure,"
		_	Nucleic Acids Research 24:573-581 (1996)
		•	Scott et al., "The crystal structure of an All-RNA hammerhead ribozyme: A proposed
			mechanism for RNA catalytic cleavage," Cell 81:991-1002 (1995)
		•	Shabarova et al., "Chemical ligation of DNA: The first non-enyzmatic assembly of a
			biologically active gene," Nucleic Acids Research 19:4247-4251 (1991)
		•	Stein and Cheng, "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really
			Magical?" <u>Science</u> 261:1004-1288 (1993)
		•	Strobel et al., "Exocyclic Amine of the Conserved G·U Pair at the Cleavage Site of the
			Tetrahymena Ribozyme Contributes to 5'-Splice Site Selection and Transition State
\square			Stabilization," Biochemistry 35:1201-1211 (1996)
		•	Strobel et al., "Minor Groove Recognition of the Conserved G·U Pair at the Tetrahymena
			Ribozyme Reaction Site," Science 267:675-679 (1995)
		•	Sullenger and Cech, "Ribozyme-mediated repair of defective mRNA by targeted trans-
\coprod	لم		splicing," <u>Nature</u> 371:619-622 (1994)
X		•	Sullenger and Cech, "Tethering Ribozymes to a Retroviral Packaging Signal for
/	1		Destruction of Viral RNA," Science 262:1566-1569 (1993)
			Szostak, "In Vitro Genetics," TIBS 17:89-93 (1993)

EXAMINER JAHLAN	DATE	CONSIDERED 2-6-06	
-----------------	------	-------------------	--

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	MBHB00-882-I (400/118)	TBA
		Applicant: McSwiggen, et al.	
		Filing Date: TBA	Group: TBA

\supset		
R	•	Taira et al., "Construction of a novel RNA-transcript-trimming plasmid which can be used both <i>in vitro</i> in place of run-off and (G)-free transcriptions and <i>in vivo</i> as multi-sequences transcription vectors," Nucleic Acids Research 19:5125-5130 (1991)
	•	Tang and Breaker, "Examination of the catalytic fitness of the hammerhead ribozyme by in vitro selection," RNA 3:914-925 (1997)
	*	Thompson et al., "Improved accumulation and activity of ribozymes expressed from a tRNA-based RNA polymerase III promoter," <u>Nucleic Acids Research</u> 23:2259-2268 (1995)
	*	Torrence et al., "Targeting RNA for degradation with a (2'-5') oligoadenylate-antisense chimera," Proc. Natl. Acad. Sci. USA 90:1300-1304 (1993)
	*	Turner et al., "Improved Parameters for Prediction of RNA Structure," Cold Spring Harbor Symposia on Quantitative Biology Volume LII, pp. 123-133 (1987)
	*	Turner et al., "Free Energy Increments for Hydrogen Bonds in Nucleic Acid Base Pairs," <u>J. Am. Chem. Soc.</u> 109:3783-3785 (1987)
	•	Uhlenbeck, "A Small Catalytic Oligoribonucleotide," <u>Nature</u> 328:596-600 (1987) (this is listed as Nature 327 in the various specifications, but it is actually 328)
	•	Usman and Cedergren, "Exploiting the chemical synthesis of RNA," TIBS 17:334-339 (1992)
	•	Usman and McSwiggen, "Ch. 30 - Catalytic RNA (Ribozymes) as Drugs," <u>Annual Reports</u> in Medicinal Chemistry 30:285-294 (1995)
	٠	Usman et al., "Automated Chemical Synthesis of Long Oligoribonucleotides Using 2'-O-Silylated Ribonucleoside 3'-O-Phosphoramidites on a Controlled-Pore Glass Support: Synthesis of a 43-Nucleotide Sequence Similar to the 3'-Half Molecule of an <i>Escherichia coli</i> Formylmethoionine tRNA," J. Am. Chem. Soc. 109:7845-7854 (1987)
6	•	Usman et al., "Chemical modification of hammerhead ribozymes: activity and nuclease resistance," Nucleic Acids Syposium Series 31:163-164 (1994)
	•	Usman et al., "Hammerhead ribozyme engineering," <u>Current Opinion in Structural Biology</u> 1:527-533(1996)

	-	-			
EXAMINER	M	et Got	2 Ford	DATE CONSIDERED	2-6-06
	70	777777			

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DIS STATEMENT BY A (Use several sheets i	PPLICANT	MBHB00-882-I TBA (400/118)	
	·	Applicant: McSwiggen, et al.	
		Filing Date: TBA	Group: TBA

4			Vaish et al., "Isolation of Hammerhead Ribozymes with Altered Core Sequences by in Vitro Selection," <u>Biochemistry</u> 36:6495-6501 (1997)
		Ŀ	Ventura et al., "Activation of HIV-Specific Ribozyme Activity by Self-Cleavage," <u>Nucleic Acids Research</u> 21:3249-3255 (1993)
			Weerasinghe et al., "Resistance to Human Immunodeficiency Virus Type 1 (HIV-1) Infection in Human CD4 ⁺ Lymphocyte-Derived Cell Lines Conferred by Using Retroviral Vectors Expressing an HIV-1 RNA-Specific Ribozyme," <u>Journal of Virology</u> 65:5531-5534 (1994)
		·	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," Nucleic Acids Research 23(14):2677-2684 (1995)
		•	Wincott et al., "A Practical Method for the Production of RNA and Ribozymes," Methods in Molecular Biology 74:59-69 (1997)
		•	Wu-Pong, "Oligonucleotides: Opportunities for Drug Therapy and Research," <u>BioPharm</u> pp20-33 (1994)
			Yu et al., "A Hairpin Ribozyme Inhibits Expression of Diverse Strains of Human Immunodeficiency Virus Type 1," Proc. Natl. Acad. Sci. USA 90:6340-6344 (1993)
			Yuan et al., "Targeted cleavage of mRNA by human RNase P," Proc. Natl. Acad. Sci. USA 89:8006-8010 (1992)
		*	Zarrinkar and Williamson, "The P9.1-P9.2 peripheral extension helps guide folding of the <i>Tetrahymena</i> ribozyme," Nucleic Acids Research 24:854-858 (1996)
			Zaug et al., "The <i>Tetrahymena</i> Ribozyme Acts Like an RNA Restriction Endonuclease," Nature 324:429-433 (1986)
	7	•	Zhou et al., "Synthesis of Functional mRNA in Mammalian Cells by Bacteriophage T3 RNA Polymerase," Mol. Cell. Biol. 10:4529-4537 (1990)
	1	•	Zimmerly et al., "A Group II Intron RNA is a Catalytic Component of a DNA Endonuclease Involved in Intron Mobility," Cell 83:529-538 (1995)

EXAMINER	(M)	M. Of	2 And	DATE CONSIDERED	
	7-7	1 /110			